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THE POLITICS OF DETECTION IN BUSINESS REGULATION

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Abstract

Detecting non-compliant behaviors is an important step in the enforcement of regulations. The literature on the subject is vast yet also narrow in its approach, in the sense that it has built on the assumption that regulators would always want to maximize information quantity and quality, while acting under two fundamental constraints: the regulator's resources, and the information asymmetry between regulator and regulatee. This article argues that regulatory agencies might not always want to maximize information: rather, other bureaucratic goals and concerns might shape detection preferences and tools of detection in what might seem to be unexpected and irrational ways. To support this argument, the article presents a case study of the regulation of industrial risks in France, which focuses on the detection of incidents – small losses of control – taking place in high hazard sites. The study presents a rich set of observations. It finds regulators sharing with regulatees a restrictive interpretation of incident reporting obligations. It identifies also a range of third party informants – employees – who have been

neither solicited by regulators to contribute to detecting incidents, nor have been particularly well received by them when they have done so. The motives of regulators that can account for these detection preferences are mixed, but an overarching one appears to be their concerns for reputational risk. Seen through such a lens, certain types of incidents and certain tools of detecting them appeared either unimportant, or on the contrary as deserving attention and effort. On the basis of the case study and other empirical illustrations found in the literature, the article then offers a more general argument about how bureaucratic reputation may shape detection practices in business regulation.

INTRODUCTION

Information on non-compliant behaviors is important material to business regulators: it enables them to enforce regulations or to rewrite them so as to better address policy problems. “Information gathering” or “detection” is therefore a necessary component of an effective regulatory regime. The literature on the subject is vast yet also narrow in its approach, in the sense that it has built on the (often implicit) assumption that regulators would always want to maximize information quantity and quality, under two fundamental constraints: the regulator’s resources, and the information asymmetry between regulator and regulatee. Accordingly, the literature has studied the tools and strategies that regulators could use so as to improve their knowledge of misconduct and failure in the regulated population. Rarely have scholars considered also the possibility that regulatory agencies might not simply want to maximize information they could use for enforcement, but that they might have other concerns that could shape their preferences of certain tools of information collection in what might seem unexpected and irrational ways. Indeed, anecdotal evidence suggests that regulators might have an aversion for certain sources and tools of information gathering, even when these could provide usable information without consuming much resource.

This article presents a case study of information gathering in the regulation of industrial risks in France that adds to this apparently puzzling evidence. It finds regulators interpreting reporting obligations of businesses in a restrictive rather than an extensive way, and failing to enforce these obligations. It identifies also a range of third party informants – employees – who are neither solicited by regulators to contribute to detection, nor particularly well received by them when they do so. The study interrogates the motives of regulators. The evidence points to several different dimensions shaping practices of detection, including the aim to maintain cooperative relationships in regulator-regulatee interactions and bureaucrats' concerns for their image. The latter finding echoes a handful of other studies, which suggest also that concerns for their image are leading agencies to make apparently irrational choices on detection. Together, these observations are pointing to the relevance of bureaucratic reputation theories (Carpenter and Krause 2012; Maor 2013) for understanding detection practices. On the basis of insights drawn from these theories, the article then offers a more general argument about what shapes information gathering practices in regulatory work. As such, the article contributes also to the further development of bureaucratic reputation theories.

The article proceeds in four sections. Firstly, I review the relevant literature on information gathering. Secondly, I present the methodology of the empirical study and provide some background information on the case. Thirdly, I expose the case study. Fourthly, in the discussion, I draw various analytical elements for the development of a bureaucratic reputation approach to detection.

LITERATURE REVIEW

As functionalist approaches of regulation acknowledge (Hood et al. 2001), “information gathering” or “detection” is an important element of any regulatory regime, as it enables identifying problematic behaviors to be modified. The detection of problematic behaviors is crucial to drafting and adjusting regulations, to enforcing their prescriptions and proscriptions, and therefore to reaching regulatory

policy's overarching goals. The detection of non-compliance is particularly important for the regulation of business organizations, which have become increasingly complex and thus difficult to "read" for outsiders, while their impact on society is considerable.

Most of the literature on this topic has built on the fundamental asymmetry of information that exists between the regulator and the regulatee: the former is dependent on the regulatee for the information it needs to perform its mandate, and the regulatee's autonomy implies that there are limits to the enquiries the regulator may make in order to collect that information (e.g. Vaughan 1990). Law and economics scholars in particular have abundantly commented on that configuration. They note, unsurprisingly, that regulated organizations would not generally be keen to disclosing their failures and breaches to regulators, for fear of incurring sanctions or other costs, such as increased regulatory oversight, reputational damage, and reduced autonomy (e.g. Innes 2001; Stafford 2007). Empirical studies of business organizations' (non-)reporting behavior have also shown that businesses would often develop strategies to hide from the regulator's gaze, even when they concede to disclose some information on their operations (e.g. Beamish 2000; Carson 1983; Lee 2010; Pfaff and Sanchirico 2004; Shah 1996; Unger and van Waarden 2009).

From that observation of the regulator's difficult position, most contributions have tried to understand and develop strategies that could improve information gathering in regulatory work. The literature has thus assessed the value of different tools and sources of information that regulators might resort to so as to improve their detection of non-compliance.

Firstly, it has been noted that the "traditional" tool of inspections and audits could only do so much to provide information for enforcement (e.g. Beaumont 1979), in spite of its central role in several regulatory regimes (e.g. Huber 2007). Inspections have been associated with the much-decried "command-and-control" type of regulation: adversarial forms of inspection have been blamed for stifling business cooperation and information flows from regulatees to regulators (Bardach and Kagan 1982). Inspections have also appeared increasingly impractical since they require abundant resources, which

states running large public debts and under the influence of neo-liberal ideas have been increasingly reluctant to spend on regulatory agencies. Similarly, constraints on public finances have been an obstacle to “responsive” or relational enforcement (Ayres and Braithwaite 1992; e.g. Haines 1997; Hawkins 1984; La Porte and Thomas 1995; McCaffrey et al. 2006), which could obtain good information flows in exchange of “understanding” and flexibility, yet require abundant resources to develop and maintain an ongoing relationship between regulators and regulatees through frequent inspections.

Secondly, the larger bulk of contributions are studies of self-reporting rules, which have been increasingly discussed and advocated as an efficient alternative to inspections. Even though they are not a novelty among tools of information gathering (self-reporting rules are an old feature in tax regulation, occupational health and safety regulation, environmental regulation, or pharmaceuticals regulation; e.g. Beamish 2000; Carpenter 2010, chap. 9), self-reporting rules have gained increasing support in the last two decades, particularly in the United States (e.g. Brehm and Hamilton 1996; Magill 2009): not only is it a cheap tool and thus one that is compatible with both the dire state of public finances in many countries and the neo-liberal agenda of rolling back the state; it fits also the broad “new governance” agenda and its growing reliance on private actors to take regulatory goals on board (e.g. Coglianese & Lazer 2003; Kaplow and Shavell 1994; Potoski and Prakash 2011; Pfaff and Sanchirico 2000; Short and Toffel 2008). Advocates of self-reporting rules have generally argued that they could achieve a good flow of information, provided that incentives were offered to firms: ideally in the form of public commitments not to prosecute self-reported violations, and promises of reduced regulatory oversight for transparent firms (e.g. Innes 2001; Magill 2009; Parker 2002; Potoski and Prakash 2011).

Thirdly, the literature has also discussed the possibility for regulators of relying on third party informants, including the media, NGOs, and employees of firms, particularly in the form of complaints (e.g. Weil & Pyles 2005) and disclosures or “whistleblowing” (e.g. Dick et al. 2010). The latter has gained increasing scholarly attention in recent years: whistleblowing has been deemed particularly

relevant to addressing “changes in the nature of criminal activity at work and the structure of work organizations” (Miethe & Rothschild 1994: 328). It has also gained the attention of policymakers in a number of countries, where whistleblower protection legislation has been passed since the 1990s (e.g. Callahan et al. 2004). Some regulatory agencies have also put in place incentives to woo third party informants: the U.S. Food and Drugs Administration (FDA) used to offer monetary rewards to hospitals for reporting adverse events involving pharmaceuticals (Carpenter 2010, chap. 9). The U.S. Securities and Exchange Commission has also offered very substantial rewards to whistleblowers coming from the financial sector (e.g. *Financial Times*, August 21, 2012: “SEC awards \$50,000 to whistleblower”).

These scholarly discussions of alternative strategies for detection have generally assumed that regulators would adjust their strategies according to their circumstances in order to maximize information. Scholars have thus assumed that regulators were essentially driven by the search for efficiency under constraints of limited resources and in conditions of information asymmetry. Yet, only very few empirical studies have tried to verify if such assumptions were true. Besides some evidence that regulators worked actively “to close the information asymmetry gap” (Macher et al. 2011), a handful of studies suggest otherwise. For example, Lobel has questioned the U.S. Occupational Safety and Health Administration’s (OSHA) apparent trade-off in favor of protected self-reporting programs and in disfavor of empowering workers and unions as informants and surrogate enforcers (Lobel 2005), in spite of the uncertain benefits of the former, and the fact that the latter have helped OSHA inspectors to identify hazards otherwise difficult to locate (Huber 2007: 144). Huber has observed further that the OSHA’s allocation of resources for inspection across the US was intentionally not linked with the number of worker complaints even though the latter had a decisive impact on resource consumption by triggering reactive inspections and have generally led to identifying more violations than planned inspections (Huber 2007: 165). OSHA also chose to abandon planned inspections for small businesses “despite the continued belief by most OSHA officials that small businesses present a greater threat, on a per-worker basis, than larger and more professional establishments” (ibid.: 74). Hawkins, in his work

on British factory inspectors controlling environmental pollution, has noted how displeased inspectors were with complaints (Hawkins 1984), in spite of the fact that the latter informed inspectors of apparent misconduct that they did not know about, and thus spared them significant effort to collect information. Hawkins noted also that British inspectors developed a network of informants from within polluting firms as an “early warning system” that could preempt complaints. Finally, Carpenter has found that the FDA had an “aversion to bad news about a product that has the imprimatur of federal approval” (Carpenter 2010: 586). McGoey has made a more fundamental critique of functionalist understandings of the role of knowledge in bureaucratic work, arguing that ignorance might in fact be of more interest to bureaucrats than knowledge (McGoey 2007).

These studies suggest that strategies of detection may not be as straightforward as the literature has generally assumed. In other words, alongside the drive to maximize information, other considerations might also shape detection practices. The aim of the following case study is to scrutinize and ponder the weight of different considerations shaping detection practices in a regulatory agency, in the hope that a detailed qualitative enquiry may contribute to drafting better theory on this topic.

Immediately below, I outline the methodology of the case study, including important background information. Then, in the main section of the article, I present the empirical material organized thematically.

METHODOLOGY

Research design

The study has focused on the regulatory agency in charge of industrial risks in France and how it has learnt about incidents occurring in these installations. The study has used qualitative data collected for the most part between 2010 and 2012 in France, through a total of 50 interviews with members of the industry and the competent regulatory agency. The information thus collected documents events and

behaviors that occurred from as early as 2000. Interviewees from different regions in France, and from sites and firms of different types (processing, refining, storage) and sizes (both SMEs and large sites) were contacted, so as to maximize variability and generalizability. Within the industry, all interviews were with staff working in the chemical or oil onshore industries. Some of the persons interviewed were working or had worked for trade associations (6 interviews), some belonged to the management of firms, either in headquarters or in top tier (i.e. high hazard) production sites (10), and some were unionized employees working in such sites (8). Within the regulatory agency, some of the persons interviewed were working or had worked in the past at the policymaking (national) level within the Ministry for Environmental Affairs (8), which oversees industrial risk policy. Others were inspectors working in the field, implementing and enforcing regulation on the prevention of major accidents and pollution in high hazard installations (7). The study draws also indirectly from additional observations and 11 interviews with staff in a top tier chemical processing site, where I was able to spend several consecutive days in the Autumn of 2011 and then in the Spring of 2012. Additional emails exchanged with some of the interviewees enabled clarifying uncertainties afterwards. Most interviews were in person; some were phone interviews. All interviewees were promised anonymity.

Additional data used for this study includes notes taken when attending a joint meeting between regulatory authorities, trade associations and individual managers from the chemical and oil industry in the summer of 2012. Various documents have been consulted, including the legislation applicable, the case law, and complementary documentation provided by interviewees. Finally, as background information, a few additional elements are drawn from a survey of 76 high hazard chemical sites in France undertaken in the Spring of 2008.

Case study background

In France, industrial organizations operating with hazardous technologies or substances are subject to a strict regulatory regime. At the center of that regime stands the Hazardous Installations Inspectorate

(HII; *Inspection des Installations Classées*). The HII delivers permits to operate to firms, and then enforces the terms of the permits with various sanctioning tools, with the exception of prosecution, which HII inspectors can request but do not have the power to pursue.

The HII is a decentralized bureaucracy defined by its technical expertise, and its work would normally not be the object of much public interest nor media coverage: local inspectors – who are all trained engineers – work with substantial discretion to monitor a reasonably small number of highly hazardous installations located within their remit.¹ They primarily answer to the *préfet*, who is the highest-ranking civil servant in every *département* and region with superior authority in several fields of regulatory intervention. Indeed, the *préfet*'s signature is necessary to make all inspectors' decisions authoritative. The *préfet* is the foremost representative of the central government at the local level. Often a generalist who accessed top positions in the public administration after attending elite schools, he or she holds also a politically sensitive position with high public visibility. Hence, when political pressure on regulatory enforcement activity is felt (e.g. Scholz et al. 1991), it is generally through the person of the *préfet*. By contrast with inspectors, who are specialized technical experts, the *préfet* is also supposed to satisfy widely shared expectations that the state should guarantee the public's safety (on the paramount role of the state as guarantor of public safety in France, see Rothstein et al. 2013).

HII inspectors would need to collect various types of information so as to monitor compliance, and incidents – small losses of control – are one of the most important. In high hazard organizations, and particularly in chemical processing and oil refining installations, incidents are “normally” frequent: “trivial events in non-trivial systems” (Perrow 1999: 43). Incidents provide qualitative, first-hand information about *actual* losses of control in operations. As an interviewed HII inspector emphasized, incidents are “real”: they are the most telling indicators of actual safety levels onsite. Indeed, incidents are symptoms of underlying problems (so-called “root causes”) that can be investigated. As such they

¹ The territorial unit defining how HII staff and activities are organized is the region, and then the *département*. France is divided into 27 regions, sub-divided into *départements*.

contribute to monitoring the production system and are essential to a learning process that in turn contributes to avoiding major accidents (e.g. Jones et al. 1999). Hence, standard industry recommendations provide that incidents should be recorded and analyzed internally. Public regulations also provide that regulators should look for that information, and that firms should report these events to regulators.

The notion of “incidents” engulfs a considerable variety of events, including fires, explosions, runaway reactions, projections, spills, vaporization, electrical failure, etc. Some of these events are noticeable for outsiders because of the smoke, smell, noise or other effects that accompany them. However, noticeability would not necessarily be a correlate of significance in terms of major hazards: a benign incident that is not a precursor event of a possible major accident could have impressive external manifestations (e.g. colorful smoke, strong unpleasant smells) because of certain characteristics of the substances involved. Conversely, a serious incident revealing a flaw in the safety measures of a site could be fully or partially controlled internally by various devices, so that no noticeable effects might ensue.

Thus, incidents are not only more or less easy to detect as a function of their varying noticeability. They are also ambiguous events, their meaning not easily understandable at face value. Yet, their importance for monitoring major industrial hazards cannot be understated.

CASE STUDY

The limits of inspections

Inspections have been the principal tool for HII inspectors to collect information on firm compliance. Regulations, harmonized to the European level through directives issued by the European Commission, have imposed that high hazard sites should be inspected at least once a year by the enforcement authority in each member state. In fact, inspection frequencies for high hazard sites in France have

been slightly higher than that. Most inspections are planned and would generally be announced to the owners/managers several days in advance. That makes it highly unlikely that material evidence of an incident (e.g. debris) would be found by the HII during an inspection, and all the more so since only a part of all incidents occurring in these installations would have noticeable consequences.

In these conditions one way for inspectors to collect information about incidents during inspections has been to ask for access to “incident books”, where all untoward events occurring during operations are supposed to be recorded. Inspectors making such enquiries – which are not systematic – would thus verify that the organization has an effective “safety management system”, including a set of procedures for recording, analyzing, and learning from incidents (having a safety management system in place is a regulatory obligation for firms, as per Annex III of the European Union’s “Seveso 2” directive; European Council 1996). In other words, a record of incidents found during inspection would be a positive element in the eyes of the inspector: a proof that the organization is self-regulating. It might also, however, signal breaches of article R512-69 of the Environmental Code (EC), which imposes on the owners of high hazard installations to self-report incidents to the HII:

The owner of an establishment declared or authorized must report at the earliest convenience to the HII the *accidents* or *incidents* occurring as a result of operating the establishment, which are likely to harm the interests mentioned at article L511-1.²

In other words, incident books could also inform inspectors of incidents worthy of direct reporting to the HII, a notion to which I shall come back shortly.

Often we discover incidents in their books that we would have classified as reportable. (interview, HII inspector)

² The interests protected by the law are very broad: “the convenience of neighborhood, or health, security, public safety, or agriculture, or the protection of nature, the environment and the landscapes, or the preservation of sites and monuments as well as elements of the archeological patrimony” (article L511-1 of the Environmental Code).

Hence, a savvier firm would be careful to maintain incident books that could demonstrate simultaneously to inspectors that the firm is paying attention to safety issues and that the issues it is experiencing are not very significant / not significant enough to warrant direct reporting to the HII.

In the accident books, the inspector will see that there are incidents or near misses that have not been reported to him, because obviously... so he knows it... there is nothing exceptional about it... and if he did not find any he would be disappointed because that would mean that the safety management system does not work... but it's always a bit delicate because there must not be too many of them... because we are always concerned that he might say: "this one you should have reported to me" and that we might find ourselves accused of being in breach! (interview, safety manager).

Inspections would thus be a rather weak and inefficient tool for detecting incidents. The incidents that inspectors would learn about by reading through the pages of internal firm records might be difficult to use anyway, either to evaluate the level of safety in the firm, or to build a case for sanctioning or prosecution: the incidents might be old already, and records kept might be too sketchy. Besides, without additional information on the incident that would give them directions on where to dig things further, they might not be able to distinguish incidents of real interest from the crowd of events that might be recorded in a firm's books. In sum, incident books and inspections more generally may be only a limited source of information for inspectors.

The framing of incident self-reporting

The other tool for collecting incident information that inspectors may use is the self-reporting rule set in article R512-69 EC, cited above. The terms of the incident reporting rule are extremely general and have not been formally specified further. The courts have made an extensive interpretation of these terms, having considered that the non-disclosure of incidents may be a breach even when the events in question have had no material consequences (*Cour de Cassation, Chambre criminelle, 4 Oct. 2005, Case Nb 04-87654*). The official enforcement posture with respect to incident reporting rules has been

also a strict “no leniency” one (interview with senior HII person), which could imply that it is easy for inspectors and firms to appreciate which kind of incident would be worthy of reporting, or, alternatively, that all safety events, including the most minor ones, are reportable.

There have been no explicit positive incentives attached to compliance with the incident disclosure rule. The level of regulatory oversight, for instance, has not been linked with the number of events that a firm self-reports. The legislation in fact imposes a minimum number of inspections per year for high hazard sites, which is generally fulfilled. There have been negative incentives to comply, however, since, by law, a breach of article R512-69 EC is a criminal offence.

It is intrinsically difficult to know the extent of what is not disclosed, therefore it would be difficult to put a figure on the level of compliance with that rule. The HII has not published estimates on the matter, and interviewees at the HII refused to offer an informed guess. Nevertheless, various pieces of empirical evidence suggest that most incidents or losses of control taking place in hazardous installations have generally not been disclosed to the HII. Safety managers in these installations would generally acknowledge that many such incidents occur every year. In large sites, small incidents could occur every week. However, year in, year out, an average of less than one event per authorized installation has been recorded in the incident database maintained by a specialized bureau of the HII.³ This average hides wide variation in firm reporting, some firms reporting several events every year, while it is not rare to encounter a number of heavily regulated, top tier installations with no reported incident or only very few over periods of several consecutive years. Average reporting figures likely hide also wide variation in inspector reporting into the national database of incidents. One can reasonably assume that inspectors would usually not register in the incident database all the incidents they have learnt about. Besides, a number of industry managers interviewed for this study acknowledged that their reporting of incidents was highly selective, the asymmetric advantage of their position enabling them to

³ ARIA database; <http://www.aria.developpement-durable.gouv.fr/index.html>

set their own rules regarding what they would report to the HII and what they would keep for themselves.

We fixed a rule with different criteria for internal and external reporting. [Q: Did you elaborate that rule together with the HII?] No. (interview, safety manager)

Information asymmetry has implied that, from all incidents occurring in high hazard sites, inspectors would generally know about the noticeable ones: those that are perceptible from outside because they had effects such as noise, smoke, smell, or other noticeable consequences that made them very difficult to hide. An overview of the public incident database confirms that most reported events have been of the perceptible kind.⁴ The not so noticeable incidents, on the contrary, would rarely be disclosed, or sketchily, somehow as a matter of courtesy⁵ to the inspector.

Where we have a margin of discretion is on incidents and accidents on site that have no impact outside.

We ask for the information but it is hard to get it. For incidents without consequences, we get no information except by email and it is only a few words. We realize that they happened when we inspect them. (interview, HII inspector)

The above statement appears to reflect the situation experienced by a majority of inspectors. However, some of them have also kept insisting that managers should report more than just perceptible incidents, including events that would be neither perceptible to outsiders nor have material consequences. That has been the case in particular in the region Provence-Alpes-Côte d'Azur:

⁴ In 2006, the French database collected 135 reports of events having taken place in chemical industry sites. Of these 135 events, 108 were very likely to have been visible to outsiders since they involved a fire or an explosion, affected people outside the plant, raised enough concern within the plant to call the fire brigade to intervene, had other consequences visible to outsiders (colored river, dead fish, smoke, etc.), or involved a fatality. Source: ARIA database; <http://www.aria.developpement-durable.gouv.fr/index.html>.

⁵ Carson also observed that incidents on offshore oil platforms were disclosed to regulatory authorities only as a matter of "courtesy" (Carson 1982: 33).

The HII re-affirms that the view of certain industry members from the *Bouches du Rhône* who (...) have expressed their wish not to report accidents or incidents rated G1/P0 [i.e., of some gravity but not perceptible by outsiders] but only to have them available for the HII, is not acceptable. This is a failure to comply with the regulatory obligation prescribed in [article R512-69 EC], and will be considered a breach. (minutes of a meeting between HII inspectors and industry representatives in the region Provence-Alpes-Côte d'Azur, in 2006)⁶

Implicit in the above statement is the threat to prosecute non-disclosing firms. In Provence-Alpes-Côte d'Azur, the Inspectorate's pressure for an extensive interpretation of the incident reporting rule appears to have paid off: significantly more reports have been recorded there, year on year, than in the comparable (in terms of industry size and type) region of Nord-Pas-de-Calais (Etienne 2014). Yet, overall, the HII has actually rarely enforced breaches of article R512-69EC: only a handful of judgments corresponding to failures to report incidents can be found in the case law of the 1990s and 2000s. This can be seen as one illustration of a more general pattern of low sanctioning observable across the board in the regulation of industrial hazards in France. Thus, in a survey of 76 high hazard chemical firms that I undertook in the Spring of 2008, 70 respondents (92.1%) had never or rarely received threats of sanctions by inspectors, 64 (84.2%) had never been actually sanctioned by an inspector, 52 (68.4%) had never been the object of a request for prosecution, and 71 (93.4%) had never been actually prosecuted.

These figures reflect a general preference for informal or relational means of achieving compliance: a flexible "enforcement style." Yet, some inspectors also seemed to fear that prosecution could "burn bridges" (interview, HII inspector) and reduce even more the flow of information coming out of the firm. In fact, prosecutions for non-reporting would sometimes trigger strong adverse reactions not only from the firm targeted but also from representatives of the sector (i.e. industry bodies; interview

⁶ SPPPI: GT REX. *Compte-rendu de la réunion du 6 septembre 2006*. Available at <http://www.spppi-paca.org/index.php?id=580> accessed 26 February 2012.

with former senior HII person). Hence, it would not be unusual for inspectors to actually give the firm the benefit of the doubt, by assuming that the manager was willing to report but his or her superiors at headquarters forbid him or her to do so (several interviews with HII inspectors). Accordingly, instead of filing a request for prosecution, inspectors would frequently respond to news of a non-disclosed incident by having an informal discussion with their contact person at the firm. In other words, detection practices at the HII appeared shaped to a large extent by concerns for maintaining cooperation in encounters with businesses, which implied a good deal of flexibility and “understanding” from the part of inspectors.

The non-enforcement of self-reporting rules reflected also the very low probability that public prosecutors would follow-up from requests to prosecute that inspectors would file. Indeed, a failure to report an incident would often be considered by them as unworthy of a prosecution (interview with HII inspector). Prosecution would be actively requested for more severe cases of deviance, though: the incident itself would have to reveal serious violations of other rules than merely the self-reporting rule. One HII interviewee gave also the example of copies of internal emails that revealed one firm’s strategy to dissimulate incidents from the HII, which thus was strong enough evidence of intent to mislead the regulator, and led to prosecution.

At a higher level in the HII’s hierarchy, there has been a drive to obtain better reports (i.e. more detailed on the causes of significant incidents and how they unfolded): an “epistemic” search for information to improve intelligence on the determinants of industrial safety (interview with senior HII person). There has not been a comparable drive to obtain more reports that could also be of interest for monitoring compliance and assessing levels of safety. Moreover, in exchanges between senior HII staff and representatives of the industry, requests by inspectors to be told of non-noticeable events as well as of noticeable ones would be called excessive by both sides, and treated as an expression of zeal rather than a legitimate interpretation of the law (field notes, June 2012). Arguably, absence of support from the top of the agency for a more stringent interpretation of the incident reporting rule signaled an

image of “reasonableness” to various stakeholders, and particularly to the industry.⁷ That image may contribute to maintaining a cooperative relationship between the agency and the industry. It fits also the interests of the industry, which would rather deal with incidents on its own, and defer the implementation of corrective measures until it would be least disruptive of production schedules: a freedom it might not enjoy if HII inspectors were to get involved after every incident.

Q: Why would you not report an incident to the HII? R: The analysis of the event, we will do it, and we will implement corrective measures. But then we prefer to do so following the timing that suits us best.
(interview, safety manager)

However, the position of HII officials on which kinds of incident reports should be collected by the HII stems also from their concerns about the impact of noticeable events on the image of public authorities. That is reflected in several episodes, one of which took place in June 2011. A refinery had released accidentally a large quantity of methanethiol: a very smelly gas also known as mercaptan, which among other uses is added in very small quantities to the otherwise odorless natural gas and propane so that gas leaks may become easily detectable. Pushed by unfavorable winds, the released cloud triggered multiple alerts for gas leaks in nearby Lyon, France’s third biggest city. Public authorities were unable to provide an explanation and tame the panic, since neither the HII nor any other public authority had been informed of the accidental release by the firm. This episode created enough tension that it was discussed between the Ministry for Environmental Affairs and national representatives of the chemical and oil industry associations for some time afterwards. Threats to prosecute were made, and the government, through the voice of the Minister for Environmental Affairs, took that opportunity to publicly

⁷ This echoes Huber’s observation that OSHA has strived to impose uniform implementation and control “subordinates who might otherwise enforce the law differently (for their own personal or political reasons) to the detriment of agency leaders’ personal and political goals” (Huber 2007: 37).

ask the industry as a whole to improve the way it communicated with the outside world about incidents.⁸ This crisis had precedents, some of which had judicial consequences for the owners of the sites concerned (interview with former senior HII person). In other words, leniency unofficially granted to firms not reporting low-visibility events coexisted with strong demands for rapid disclosures of noticeable events.

It is particularly from the perspective of *préfets* that non-disclosures of noticeable incidents have been problematic (several interviews with HII inspectors and industry managers). In such circumstances, they who are supposed to speak publicly in times of crisis about how the state is keeping the population safe had found themselves looking unaware, surprised, and unable of dealing with the dangers posed by hazardous industries situated within their remit. Their concerns have been shaped to a great extent by widespread public expectations that the state guarantees public safety at all times (Rothstein et al. 2013), by the trauma of major accidents such as those of La Mède (a refinery; 1992) and Toulouse (a fertilizer plant; 2001), and by events such as the mercaptan incident in Lyon. As a result, rapid and detailed incident reports from the firm to public authorities have been generally requested so as to enable the *préfet* to assert publicly (on TV or the radio) that public authorities are aware of what is going on and are effectively “in control”. Such concerns had become particularly strong in the heavily industrialised South-East of France after the La Mède accident in 1992. After a significant incident in 1994 that had been poorly managed by the *préfet* and attracted the ire of the central government in Paris (interview, HII inspector), firms were pressed to improve their reporting from as early as 1995 and to rate reported incidents on a scale of gravity (*gravité*, rated G0, G1, ... G4) and noticeability (*perception*, rated P0, P1, P2). HII inspectors requested it as a way to comply with article

⁸ “Incidents, in particular when they are likely to affect the public, must be disclosed immediately to public authorities so that persons potentially affected might be informed. It is imperative in order to send the right messages on time and to avoid legitimate anxiety for the people concerned.” Nathalie Kosciusko-Morizet, then Minister for Environmental Affairs, Press release, 22 June 2011.

R512-69 EC, but it was also meant to help public authorities better adjust the way they would communicate publicly on each incident. Attention to the issue then abated, but concerns about the public's reactions to industrial incidents were revived and took an even broader significance after the Toulouse disaster of September 2001.

In the South-East, the *préfets*'s concerns have led to the drawing of contracts ("*conventions*") that site managers in high hazard sites have been requested to sign: according to these contracts, site managers have committed to quickly inform the *préfet* about any incident likely to generate public anxiety. For instance, in the *département* of *Isère*, such a contract stipulated that the director of the firm or his/her representative must inform the *préfet* of events that go from small incidents with consequences perceptible by outsiders to much more serious accidents. The impression that particular events might make on the public was an important criterion: one of the events for which such rapid communication was warranted was "an important and unusual display of emergency services at the site", which would sometimes result from false alarms, notably those triggered by passers-by. One of the dispositions in this contract also required that the *préfet* be informed in case the director of the site or his/her representative would inform other third parties (such as mayors, schools, media) about the incident. These contracts have not been formally enforceable, and they have not replaced the legal obligation for firms to inform the HII. Yet, they might have a great impact on regulatees by virtue of the fact that *préfets* are very powerful figures able to substantially affect the fortune of regulated firms (unlike inspectors, whose decisions need *prefectoral* approval).

Remarkably, the concerns of persons in superior positions have shaped the "working definition of compliance" (Hutter 1997: 80) with incident reporting obligations that many inspectors have applied at the "street-level": in interviews local inspectors from various regions and experience would generally consider whether incidents were perceptible for outsiders or not as the main or even the only criterion to

assess compliance with article R512-69 EC / the incident reporting rule, even though such criterion never appears in the written legislation or in any enforcement guidance.⁹

At a minimum it should be reported if it is likely to be perceived by a third party. (...) Otherwise the criteria are the owner's (interview, HII inspector);

It is rather vague. There is one condition which is: "can it be seen from outside?" (interview, HII inspector).

Industry managers would also cite the same criterion when prompted to specify their understanding of the law. For example:

There is not really any rule... the only rule is: if it is perceived from outside then we make the call (interview, safety manager)

In sum, the "working definition" of the self-reporting rule embodies a number of concerns and constraints. Inspectors have had only limited means of directly accessing information on incidents and of incentivizing businesses to self-report. Hence, noticeable incidents have been the events that the Inspectorate could detect more easily. Yet, the emphasis on noticeable events and the non-enforcement of the self-reporting rule are also understandable with reference to what inspectors and agency leaders have felt could be reasonably requested from regulatees within the confines of cooperative relationships. Finally, the concerns of the HII's hierarchy and of the *prefectoral* authorities about their image in the eyes of both the public and the industry have also appeared determinant in constructing a restrictive interpretation of the law on incident reporting, shared across the public administration and the industry.

⁹ Note the similarity with Hawkins' observations in the regulation of pollution in the United Kingdom: "for many staff the working definition of a "serious" pollution is "basically anything that's going to cause a great amount of public reaction." (Hawkins 1984:97)

More insights on what shapes detection practices can also be inferred from the responses that members of the HII have given to a range of active third party informants: unionized employees.

Dealing with unsolicited third party informants

In the domain of industrial risk regulation, third parties to the regulator-regulatee dyad have been generally not considered a source of incident data, or a source of information at all. The regulatory regime for major accident and environmental risks in France has effectively monopolized control over the flow of information in the hands of management: thus from a legal point of view the Inspectorate “knows only the owner” (interview with HII inspector), or whoever the owner has appointed to represent him or her when the Inspectorate calls.

Workers have not been included in that process, although they too could provide information since they would often be aware of incidents occurring on site. Indeed, there has been no provision for the HII to receive and handle worker complaints. Besides, workers reporting issues of industrial hazard could not benefit from legal protection for whistleblowers since there was none in place until new legislation passed to that effect in April 2013.

This contrasts with provisions applying to the Labor Inspectorate (LI), in charge of enforcing regulations on Occupational Health and Safety (OSH) and employment law, which would also intervene on the sites that the HII regulates. The LI has been at the receiving end of legally protected worker “alerts”: urgent OHS matters that worker representatives could disclose to the Labor inspector (e.g. dangerous work conditions and non-reported OHS incidents), so that the inspector might then react and perhaps enforce sanctions upon management.

Some changes were made in the aftermath of the Toulouse disaster that begun to give a voice to workers in the field of industrial risk regulation, which is the HII’s remit. A new law passed in Parliament on 30 July 2003 (law n°2003-699 on the prevention of technological and natural hazards) has allowed worker representatives to transmit written observations to the HII inspector when the latter

is carrying an inspection onsite (cf. article 16). It has also included the HII inspector as one of the external third parties to the firm able to attend safety committee¹⁰ meetings, where exchanges with worker representatives could take place. In parallel, several efforts have been made to see the HII and the LI coordinate their actions on high hazard sites, including interacting jointly with the safety committee. In other words, the more recent legislation has begun to create opportunities and channels for HII inspectors to develop some kind of exchange with worker representatives.

Yet, a number of worker representatives have not waited for these legal reforms to take a role in industrial risk regulation. In particular, worker representatives have reported undisclosed incidents to the HII from as early as 2000. Worker reports would generally be in the form of a phone call or a letter. For example:

There was a distillation tank that had exploded. (...) There's a guy who called me, he was a new guy, one of the managers, and as he passed the message to me, I thought, he has not understood anything, it was not necessary to call me for that: "a tank of cold water that had broken up." (...) And it kept bugging me, so I called the unit. (...) The tank had exploded, it had shot shrapnel everywhere. (...) Half of the unit was destroyed. And the other guy calling me to tell me a tank of cold water broke open! If I did not know better, I would just say that he's stupid, that it was not necessary to call me for that. (...) It's me who called the HII on that one. (...) They really did not like it. They had not planned to report it to the Inspectorate. (interview, unionized worker representative)

We tell [the HII] either when we feel that the problem will come up big size (...) or else the incident has happened and we try to know if they have been told. (interview, unionized safety representative)

¹⁰ Safety committees are known in France under the acronym CHSCT (*Comité d'Hygiène, de Sécurité et des Conditions de Travail*). Elected worker representatives sit in the safety committee, as well as the director of the site. Statutorily, the safety committee should meet at least four times a year onsite and examine issues of concern for the health and safety of employees. Since 2003 the safety committee could also discuss major accident hazards.

Although worker reports have not been experienced everywhere, interviews showed that they have come from workers in multiple firms in both the chemical and oil industries, and in different regions throughout the country. Local inspectors interviewed mentioned receiving individually a small handful (2-4) of such reports per year. A few interviewees mentioned cases of current or former workers reporting incidents as a way of exacting personal revenge. However, most HII inspectors or industry managers generally associated worker reports of undisclosed incidents with industrial disputes between managers and the unionized workforce, which may or may not involve also a genuine major hazard concern. In other words, worker reports were perceived as union behavior, generally coordinated at the level of the safety committee.

That happens when there is a deteriorated social climate, managerial authority is contested... it's often union demands that lay behind. (interview, HII inspector)

You have safety committees that are nothing but a union's tribune. (...) if you have an incident they will sell you out to either the LI or the HII. Q: *Is that happening frequently?* R: Yes. Q: *So both the LI and the HII?* R: It depends on the case. They know who to inform. (interview, safety manager)

For incidents less visible then the role of the unions comes into consideration. We have unions who write to the *préfet* to tell them that we have had incidents they are not aware of. (...) This is one of the weapons they use. (...) This is often done in a very tense context. (...) Members of the safety committee do it because they are fighting for one reason or another. (...) It is done to support a safety discourse: "if there are less men, then it is less safe." (interview, safety manager)

These reports could be rare, and as such they would signal an episodic deterioration of labor-management relations. However, a number of interviewees also found that, in their experience, workers would report incidents whenever the opportunity presented itself, which appeared to lead a number of managers concerned to self-report more than they would otherwise.

They sell you out... which is one of the reasons why on certain sites it's not thinkable that you would hide the smallest incident. In every case, your own staff is selling you out. (interview, safety manager)

We always end up knowing [about incidents], especially through the safety committees. (interview, HII inspector)

These reports, which have been extra-legal, have generally not been solicited by the HII, for whom they have been a complicated matter to handle.

On the one hand, incidents disclosed by workers might often be of the sort that falls out of the “working definition” of reportable incidents, because they were not visible from outside and/or had no effects beyond the perimeter of the facility. However, an undisclosed incident might still be significant for what it says of the level of compliance and the overall safety of the plant, which are both of interest for inspectors. Hence, inspectors would likely not ignore a worker’s report of an incident even if it were one that was wholly contained within the perimeter of the site.¹¹ However, they would generally not prosecute the firm.

On the other hand, worker reports could threaten the relationship between the inspector and their contact persons, by signaling a lack of transparency from the part of managers, possibly even an intention to deceive. This might just add bad feelings to an already tense relationship, but it could also taint a good relationship, which is what inspectors would generally try to achieve in their dealings with regulatees. Interviews suggested that, while pondering the seriousness of worker allegations, inspectors would tread carefully with managers so as to maintain a cooperative relationship in spite of the latter’s apparent deception.

The Inspectorate calls us. They are very annoyed. They take the letter into account as information that needs to be confirmed. (interview, safety manager)

How inspectors have responded to worker reports reflects these relational concerns, even though responses might differ greatly from one inspector to another. Indeed, the HII being a decentralized

¹¹ This echoes Hawkins’ (1984) and Huber’s (2007) observations that inspectors in the agencies they studied could not afford ignoring third party complaints altogether in case one of them uncovered a truly significant problem that it would be too costly (for the inspector and the agency) to ignore.

bureaucracy whose street-level agents have substantial discretion, inspectors on the ground have dealt with worker reports in variable and sometimes contradictory ways. Some inspectors would use the information not immediately but as an element to verify and explore in their next scheduled inspection, without breaking the apparent routine of regulatory work. They would not reveal that an employee informed them. Thus, they might protect their informant, with whom they might be rather regularly in contact, and maintain appearances in face-to-face interactions with managers, but not under the premise that they could hide from them that they might have been tipped off.

Generally we will discuss it during an inspection: “so we would like to see the incidents’ book, for that period.” We never say that we got an anonymous tip. (...) They are not stupid, the managers. They know that we might have been tipped off. (interview, HII inspector)

Yet other inspectors interviewed appeared reluctant to let workers get involved and jeopardize their relationship with managers. Some unionized employees interviewed mentioned cases where they addressed letters to the Inspectorate asking and expecting that their identity be kept secret by the inspector in his/her further dealings with the company managers. Yet the inspector would forward a non-anonymized copy of the letter to the company managers, asking for their comments in return.¹² One inspector also explained that his services would react swiftly to a worker report and meet managers as a result, which was an opportunity not only to clarify the matter of the incident, but also the matter of the tip-off. In fact, that meeting was an opportunity to neutralize any negative mutual feelings between inspector and manager that the workers’ report might have created, and probably disprove any suspicions that the worker’s report might have been solicited by the inspector.

Everything that is anonymous we do not take it into account... well we analyze it anyway. (...) We had a person who called, who knew what she was talking about but did not want to tell her name. We had a

¹² “They have done it several times” (interview, unionized safety representative).

meeting with the management 48 hours later, which answered all the questions. We told them that someone had called us. (interview, HII inspector)

Sometimes, inspectors would refuse to acknowledge workers altogether as a reliable source of information. For example:

This was before 2001. We had asked to meet [the HII] because something was wrong. They were obliged to meet us because we had written to the *préfet* (...) We were received not by the director [of the regional HII] but by his second. We got bawled out first thing. I have never seen anything like it. Asking us stupid technical questions, telling us “we know, you don’t” (...). We were there to tell him that safety services were running thin and materials were rotting, but he did not want to hear it, because he has got the science, because he is able to calculate I don’t know what (...) and we are not. (interview, unionized safety representative)

Both types of response to worker reports can be linked back to the HII’s identity and mandate. Unlike the LI, the HII was not built or operated in a spirit of corporatist regulation. Its role has not been to protect the interests of workers, but rather those of the general population and those of firms. Indeed, the HII has been institutionalized as a supporter of industrial development (channeling subsidies to firms), its staff affiliated with the Ministry for Industry, and “lent” to the Ministry for Environmental Affairs to also regulate industrial risks (environmental pollution and major accidents). These conflicting goals were reflected in the identity of the agency and its agents’ motto – “at the service of the industry” – which, critics have argued, was to blame for a pattern of leniency in enforcement, characterized by very scant use of sanctions (e.g. fines) and prosecution. Its main subjects have been managers, not workers, and it has usually interacted with the former flexibly, thanks to a common technical background (both inspectors and their contact persons would generally be trained engineers). A number of things changed after the Toulouse disaster in September 2001 provided to policymakers and various stakeholders the opportunity to reshape the HII. From then on, activities of support and control have become organically separate. The HII was restructured, rules of operation were changed, a number of new inspectors were hired, and the relationship between the HII and other agencies was also changed.

However, key features of the HII's role and identity have survived to this day, including its distance from unions.

HII inspectors have often been defiant of unions (a defiance sometimes reciprocated; e.g. Chaskiel 2007) – deemed not knowledgeable enough to understand the complexity of major technological risk – and of their agendas. Inspectors have often perceived unions as a threat to their relationships with managers. Unions have also been perceived as an audience that does not have as much the ear of the *préfet* as other stakeholders do. As a public report noted in 2007:

HII's agents have had reservations towards [safety committees] seen as a partisan forum because it includes most of the time worker representatives belonging to unions, more preoccupied with establishing a power relationship than with technical issues. More fundamentally perhaps, we have sometimes felt that such defiance might originate from the priority they give to achieving a technical cooperation with firm managers of whom they often share the know-how and the curriculum. During interviews, several [inspectors] have emphasized that they did not intend to thus create difficulties for the chief manager and that, even if that came to be, their advice would not necessarily be followed up by the *préfet*, of whom they depend tightly. (Chassine et al. 2007:26; my translation)

Accordingly, HII inspectors on the ground have tried not to get involved in industrial relations disputes, especially when claims were made that management had been breaking the law the HII is meant to enforce.

We are not comfortable with conflicts of interests inside the company. The HII knows only the manager. It is a barrier, but it suits us as well because we don't have to enter in the whole organization. (interview, HII inspector)

[The HII] would be in a position where they would have to say that the worker representatives are right. They also have to manage their relationship with the owner. (...) I understand completely, I am putting myself in their shoes. It is really not simple. (...) They don't like to be used. (interview, unionized safety representative)

The HII is the police of hazardous installations. But they will first discuss [with managers]: “explain to us in what circumstances the incident happened.” That is not our idea of what the police should be doing (...) The worst is that they tell us we are right... but they don't say it [to anyone else]. They don't have a culture of independence. (...) They're scared stiff. They try to protect themselves from both sides. (interview, unionized safety representative)

Hence, inspectors have either discouraged union attempts to make contact,¹³ or they have developed relations with worker representatives and responses to worker reports subtle enough to prevent them from appearing to be taking the side of employees and unions in industrial disputes.

Developments since the mid-2000s have added a revealing twist. The Ministry for Environment and the French Chemical Industry Association (*Union des Industries Chimiques, UIC*) have launched a joint initiative to encourage individual firms to improve the way they communicate to outsiders about incidents occurring onsite. Remarkably, that initiative was not taken with the goal to improve compliance rates with article R512-69 EC. Rather, it has targeted neighbors, local politicians and journalists, all important audiences of both the regulator and the industry. The aim has been to get these audiences informed very rapidly of what was actually going on whenever a noticeable incident was taking place, notably in the hope of educating them about the nature of high hazard industries (i.e. getting them to accept the fact that incidents are a normal feature of these industries). Early participants to this initiative found a – perhaps unintended – benefit in “over-reporting” incident information to outsiders: it helped counteract worker initiatives in that domain. The following extracts of an interview with two managers at a chemical firm describe how reporting many more incidents than usual to the local press and mayors of surrounding municipalities has dispossessed workers of incident reports as a means to put pressure on

¹³ HII inspectors have notably ignored worker representatives' invitations to attend safety committee meetings: “We are invited but we never go” (interview, HII inspector); “You really have to be nagging to make them come to the meeting” (interview, unionized worker representative); (also: Chassine et al. 2007).

management. As the quote suggests, this firm's management had also recruited the Inspectorate as support in post-incident safety committee meetings.

I ask the HII to come to the safety committee. (...) When the HII is there, the unions, they bow their heads, and there we say it all: all the procedures that were breached [by workers], and so on. (...) [the unions reporting incidents to oppose management] is something that we could have had a few years ago, not any more. (interview, safety manager) Communicating incidents enables cutting unions short in cases where they might want to escalate an argument and use a problem to their advantage (interview, communication manager)

Senior representatives of both the HII and the chemical industry association have used that benefit as an argument (among others) to convince more industry managers of stepping up their communication efforts towards the public in the immediate aftermath of noticeable incidents. In separate speeches to a crowd of industry managers from the chemical and oil industries, they have argued that more incident disclosures would help to cut short "radical opponents" of firms, both from within and from without (field notes, June 2012). In other words, if managers communicated more incidents, others would have fewer opportunities to report them in their stead. Transparency on safety performance has thus been reframed in terms of managerial control over incident information and as a step towards "pacifying" the management and regulation of industrial hazards. Besides, this contributed to signaling to the industry that the HII's hierarchy was not supportive of third party informants, and rather relied on managers for the information it needed.

In sum, more than one factor has shaped the attitudes of HII agents towards third party / employee informants. The overall response of caution veering towards hostility that the study has documented can be explained by inspectors' aversion to industrial disputes and their concerns that being dragged into such disputes might impact negatively on their relationship with managers. Indeed, managers are the most salient audience of inspectors: a consequence of the latter's identity, training, and mandate. Accordingly, HII leaders have occasionally signaled to industry representatives that they

relied on managers as opposed to third parties for information on incidents, and in fact encouraged the former to demobilize the latter.

DISCUSSION AND CONCLUSIONS

I have presented above a case study of a regulatory agency and the manner it has collected information on possible misconduct and failure within a population of business organizations. I have described how different detection tools and different kinds of informants have been considered and used (or not) by street-level agents and their superiors in the French public administration so as to learn about incidents taking place in high-hazard industrial sites.

The empirical study has made several observations. Both regulators and regulated businesses interpreted incidents self-reporting rules in a way that was biased towards noticeable events. Top bureaucrats developed ad-hoc tools so that they could be speedily informed about noticeable events. Agents showed prudent or negative attitudes towards unsolicited worker informants. Agency leaders signaled to industry representatives that they could successfully incapacitate third-party informants by reporting more incidents themselves to the general public. The study has identified various aims, concerns, and constraints that have shaped detection practices, notably difficulties to access incident data, limited means of incentivizing self-reporting, the aim to maintain cooperative relationships with regulatees, and concerns for the agency's or other top bureaucrats' reputation.

An overarching thread in the study is what might be summarized as bureaucrats' "political sensitivities" towards incidents, how they were reported, and by whom. Indeed, agents both at the street level and in top-level positions appeared to approach the matter of incident detection and incident reporting with political goals and political concerns in mind. That does not mean that efficiency – i.e. the maximization of incident detection – was not important, but it often appeared secondary to other goals. Besides, the pursuit of efficiency in information detection appeared to be frustrated by significant

obstacles, such as the capacity of businesses to exploit information asymmetry, the limited value of industry books as a source of information, and the lack of support of prosecutors to enforce the legislation on incident reporting. Alongside and sometimes in contradiction with the aim to maximize detection, agents appeared to approach the matter of incidents from the vantage point of their relationships with business managers, industry bodies, the general public and their political principals. Seen through such lenses, certain types of incident information (and certain tools of data collection) appeared either of too little importance to deserve attention and effort, especially if they were difficult to acquire in the first place, or they appeared potentially harmful and therefore deserved to be carefully managed. In other words, political concerns appeared to frame the way other dimensions – limited resources, information asymmetry, enforcement style – would shape detection practices.

Albeit drawn from a single case study, the claim that detection practices have been shaped by the “political” ends of bureaucrats could be generalized. Indeed, a few other studies have also found that detection efforts are a function of bureaucratic politics, and notably of the perceived risk that regulatee failure or misconduct might impact negatively bureaucrats’ image and their relationships with various groups. Thus, Hawkins, in his study of pollution regulation in the UK, has linked the negative attitude of inspectors towards complainants to the Inspectorate’s public image: “the involvement of a complainant can make an incident a public matter in which concern about the efficiency and responsiveness of the authority may be raised” (Hawkins 1984: 97). To preempt complaints, British inspectors solicited “disloyal” workers within firms to inform them of pollution incidents,¹⁴ which contrasts with the reluctance of HII inspectors to rely on unionized workers in France. Carpenter has claimed that

¹⁴ “Informants are recruited on routine sampling visits and encouraged by field staff to report any untoward incident or abnormal effluent: ‘You build up a series of contacts or spies who aren’t particularly loyal to the factory who... when you go into a factory will run over to you and say “You know what they were doing last night? They were emptying their acid baths.”’ Since many pollutions carry with them few signs about their origins, such reliance on inside information is an effective way of producing knowledge about offenders.” (Hawkins 1984: 99)

the FDA's problem with "surprise" safety alerts about pharmaceuticals it had authorized is how they might be perceived by various audiences, and notably the FDA's political principals, as evidence of "a lack of control, a lack of power, and a lack of protective ability" (Carpenter 2010: 612). Huber has argued that OSHA's detection practices were shaped in order to project an image of "neutrality" towards important audiences (chiefly the agency's political principals in the US Congress), which has enabled OSHA's leaders to "build political support" (Huber 2007: 37). Huber has found also that OSHA officials considered "the inspection-forcing mechanism of worker complaints as a political liability, not a strength" (ibid.: 165) because it contributed to the critique of OSHA as a captured, unreasonable regulator. Therefore, they strived to minimize the impact of worker complaints on the OSHA's overall strategy of detection.

In other words, the case study and a few additional empirical studies of detection all point in a similar direction, suggesting that detection practices are principally (but not only) shaped by regulators' concerns for their image and reputation. In the broader public administration literature, such a focus has been increasingly popular among scholars working under the broad headline of "bureaucratic reputation theories". According to that literature, and the work of Daniel Carpenter in particular (Carpenter 2010), bureaucratic behavior can be understood as shaped by the development and protection of an agency's reputation. Carpenter defines reputation as "a set of symbolic beliefs about the unique or separable capacities, roles, and obligations of an organization, where these beliefs are embedded in audience networks" (Carpenter 2010: 45). Reputation is an important asset for bureaucratic agencies: of their reputation depend their autonomy, resources, integrity, and ultimately survival.

Although many scholars have begun exploring how "reputation regulates regulators" (Gilad and Yogev 2012), as of yet there had been no "bureaucratic reputation theory of detection". So far, most of the work done within that stream has rather focused on how regulatory agencies would enforce regulations or fail to do so (Carpenter 2010; Heimann 1997; Maor and Sulitzeanu-Kenan 2013; McGoey and Jackson 2009), and how they would communicate about their activities to various audiences so as

to claim credit or avoid blame (e.g. Carpenter 2010; Gilad and Yogev 2012; Gilad et al. 2013; Maor 2011; Maor et al. 2013). In other words, the focus has been on what regulators did or did not do with the information they had, not how they collected that information. Huber's work on the OSHA (Huber 2007), which is principally a study in the allocation of enforcement resources, has come closest to elaborating a reputation theory of detection. However, his work is, as I will argue below, a study in a particular type of reputation-based strategy of detection, which he called "strategic neutrality". There are other dimensions to detection and reputation that Huber has ignored yet should be included in a broader theory of the politics of detection.

In the remainder of the article I propose to expose a number of theoretical propositions inspired by bureaucratic reputation theories, to be specified, confirmed, or contradicted in future research. This theoretical essay is meant to be integrative, taking into consideration not only reputation but also other dimensions likely to affect detection practices, such as resource limitations or enforcement styles. In the following, reputation concerns hold the role of an overarching lens that frames how various dimensions are shaping detection practices.

Reputation consists of beliefs about an agency's capacity to perform its mandate, and those beliefs may be negatively affected by public evidence of regulatory failure. As Maor notes, agencies cultivate reputations "by delivering unique services and by avoiding visible failures" (2013: 7). In that respect, publicly available news of problems that an agency was mandated to prevent might be bad news for the agency herself if interpreted also as what Landau and Stout have called an "administrative error" (Landau and Stout 1979). That "reputational risk" (Power 2007) may mirror back on the way the agency collects information on non-compliant behaviors. As a result, regulators would be more concerned about cases of regulatee failure or misconduct that are noticeable and/or made public than about cases unknown to third parties. Obviously, regulators might learn about noticeable events more easily than about non-noticeable ones, yet information for the former might also be more difficult to

control since noticeability often implies public knowledge.¹⁵ By contrast, less visible events would entail less reputational risk and might therefore be more easily controlled; in fact, they could even be safely ignored (e.g. Hawkins 1984: 98). Yet, precisely for the reason that they are less visible, a range of behaviors – arguably the overwhelming majority of behaviors that regulators are mandated to address – are also less likely to come easily to the regulator’s knowledge, with the risk that the regulator might eventually fail to fulfill its mandate.

Noticeability implies the risk of surprise, which would not make an agency look good. Hence, one should expect that regulators would invest effort and resources in securing a kind of early warning system for noticeable adverse events. Thus, they could communicate quickly about them so as to mitigate reputation fallouts.

Inspections – assuming the agency would have the resources to fund a thorough inspection programme – might be an effective way of detecting a range of non-noticeable violations. However, it cannot be considered efficient enough to provide immediate information on events entailing a reputational risk for the agency. Therefore, the agency might count on regulatees themselves to provide swift information (e.g. Carpenter 2010; this study), or else count on particular categories of third party informers for that same purpose (e.g. Hawkins 1984). From the point of view of bureaucratic reputation theories, such choices between categories of informers have reputational importance. Indeed, an agency’ reputation is an asset distributed among various audiences. These audiences would typically include the regulated population, but also legislatures, the media, professional organizations, unions, and so on. Some of those audiences could also play the role of third-party informers. Since bureaucratic choices often imply making trade-offs between maintaining or enhancing reputation with one audience and taking a reputational loss with another (Carpenter and Krause 2012; e.g. Huber 2007), choices of informers would likewise often imply making a trade-off between audiences.

¹⁵ Publicity of negative performances has a technological and a social dimension: bad news have been more easily public with the development of social media and individual means of re-transmitting text and images.

Not all audiences would be equally important for an agency. That would depend on the agency's mandate, but also on the relative power of these audiences to alter the agency's fortune. Hence, such trade-offs would likely reflect the contrast between the interests the agency is meant to protect and those it could ignore, between audiences having the ear of the agency's principals as opposed to those without allies in legislatures or government. In other words, such considerations would be important to explain an agency's choice to rely on businesses or on third parties (e.g. employees) for information. For instance, they can account for the trade-off documented earlier in the case study between relying on managers as opposed to unions to detect incidents in high hazard chemical and petrochemical sites.

An agency might not have to consider making such trade offs if it could persuade businesses to self-report their mishaps and misbehavior swiftly and directly. For instance, Carpenter has suggested that the U.S. FDA in its gate-keeping capacity has had the means to obtain the information it requires directly from pharmaceutical businesses.¹⁶ However, the institutional terms under which the agency operates (its mandate and the terms of the legislation it should implement) or the resources it has to monitor business activity might not empower it enough. In such conditions, regulatory agencies might follow the advice of the law & economics literature and offer businesses guarantees of immunity or promises of leniency in exchange for their self-reported failures, in the hope that this might improve self-reporting rates and quality.¹⁷ Magill (2009) has convincingly argued that, in the US context, self-commitment not to sanction self-reported violations had various advantages, and notably that it might

¹⁶ "Because regulation and law establish the firm as the fundamental subject of FDA authority, the Administration can shape the incentives and behaviors of drug companies much more easily and durably than that of nurse-practitioners, pharmacists, physicians, hospital administrators, and others whose decisions influence how drugs are utilized. Again, most of the reports on adverse reactions come not from physicians, nor from hospitals, but from manufacturers. Hence, the gatekeeping legacy is one that structures the flow of information about post-market safety" (Carpenter 2010: 609).

¹⁷ A number of agencies in the U.S. have established programs that explicitly offered leniency or immunity to self-auditing firms (Lobel 2005; Magill 2009).

increase an agency's reputation and autonomy. Arguably, this might be the case if it contributed to demobilizing an agency's opponents within the regulated population (e.g. Huber 2007). In decentralized bureaucracies, promises of leniency or immunity could be made by an individual agent with enough discretion in her one-to-one relationship with her contact person in the regulated organization: an unwritten yet repeatedly performed commitment to show "understanding" and not to escalate on issues disclosed in good faith (e.g. Haines 1997:117; Hawkins 1984:99).

However, immunity or leniency promises might conflict with widespread beliefs about accountability and a regulator's role in holding regulatees accountable, which would generally be a component of an agency's reputation. Hence, such a trade-off between transparency and accountability might not be morally and politically acceptable everywhere, or for a range of serious violations. In a number of contexts, agencies making such promises publicly would expose themselves to criticism. It might not even be acceptable to an agency's enforcement arm, depending on the latter's core values, that immunities for self-reported misconduct would be offered. Arguably, such offers might therefore be made unofficially. They may then hold only temporarily, or else would require that the agency projects ambiguity (Carpenter and Krause 2012: 29), or what Brunsson would call "organized hypocrisy" (Brunsson 2002), so that appearances of acceptable agency behavior would be maintained.

Poor cooperation from the part of businesses themselves might lead an agency to consider relying on third parties instead, unless the legislation would provide for third-party informants to make complaints or report problems directly to the agency (e.g. Huber 2007). In either case, the agency would face dilemmas that are principally – but not only – reputational. Third-party informants could bring benefits to a regulator and boost its profile by improving its enforcement record. It might also encourage regulatees to self-report more in fear that they might be "sold out" by a third party if they did not (as the evidence in the French case study suggests). Yet, using third parties as informants may also bring various reputational costs.

Firstly, third parties may be unpredictable and their motives uncertain. They might go public rather than make disclosures only to the agency, with the possible consequence of making the latter look bad in the eyes of important audiences (particularly the media and the agency's political principals). In order to gain control over third party informers, a regulatory agency could offer financial incentives, like the SEC to whistleblowers. Another option would be to woo certain groups having access to the information the regulator wants and empower them by providing them (non-financial) support. A classic example in the field of occupational health and safety (OHS) regulation consists in involving worker representatives and labor unions in the monitoring and reporting of OHS violations (e.g. Weil and Pyles 2005; in the field of immigration control, Gilboy 1997). Another risk is that third-party informers might be unreasonable or "zealous" (Ayres and Braithwaite 1992), making all sorts of complaints, which could taint the image of the regulatory agency itself, particularly if the latter did not have the discretion to choose what complaints or reports to act upon.¹⁸ In such conditions, the imposition of restrictive conditions on what constitutes receivable third-party information would be one way of mitigating any reputational losses (e.g. Huber 2007: 77).

Secondly, relying on third parties to detect non-compliance might also be interpreted as a sign of distrust in regulator-regulatee dyads (Etienne 2013). It might damage the relationship between regulator and regulatee, reduce the flow of information that is voluntarily provided by the regulatee, and perhaps reduce cooperation in other matters as well. Arguably, frontline agents might develop particular strategies – as illustrated in the case study – when responding to tip-offs so as to preserve their relationship with the regulatee: either projecting ambiguity and relying on third party informers as discreetly as possible, or demonstratively undermining third party informants. Using third-party informants openly might also create distrust at a more general level between the agency and the

¹⁸ For example, the OSHA is obliged to respond to worker complaints by conducting inspections (Huber 2007).

business community.¹⁹ By contrast, openly welcoming the contribution of third-party informants might not entail such risks if the reputation of the industry regulated was itself very poor. For instance, it might be hypothesized that the bad reputation of the financial industry, widely seen nowadays as a sophisticated and immensely resourceful rule-bender, has enabled the U.S. SEC to offer very substantial rewards to whistleblowers without much risk to the agency's reputation.

Finally, openly cultivating a network of third-party informers might also entail other problems, if informers belonged to a constituency that is at odds with one of the agency's most important audiences. The case study offers the example of labor and capital rivalry in industry (also Scholz 1991). By appearing to collaborate with one constituency for detecting non-compliant behaviors, the regulator might alienate another, which might have negative consequences for the agency. For instance, worker complaints have been experienced by OSHA officials as a "political liability" (Huber 2007: 165). Accordingly, certain constituencies campaigning to be recognized as informants might be actively discouraged by agency officials because their intervention could have a negative impact on the latter's reputation with important audiences. Arguably, the feasibility of publicly encouraging a constituency of would-be informants to report the failures of their antagonists to regulatory authorities would also depend on the broader political or ideational context. In some countries where corporatism has been a major influence (e.g. Germany, and France to a lesser extent), instrumentalizing conflict between constituencies has been and remains a legitimate mode of producing the public interest (what Dunsire called the "collibration" strategy; 1993). In other countries (such as the United Kingdom nowadays), such an approach would on the contrary likely be controversial and entail reputational risks for the regulatory agency. The agency might be perceived as divisive and partial. In other words, a regulator taking that route might expose itself to politicization, and risk losing autonomy, resources, being

¹⁹ It is a relatively common feature of regulatory regimes that industry representatives would complain that their members are being treated "like gangsters" by regulators, or that regulators are behaving "unreasonably" in their interactions with the regulated population. The field of occupational safety in the US is a case in point (Bardach & Kagan 1982; Huber 2007).

restructured, or even terminated. In such context, it would be far more rational for it to project an image of neutrality (Huber 2007).

These propositions can be the building blocks for a bureaucratic reputation theory of detection. As a general perspective on detection preferences and behaviors, it predicts variations in the ways regulatory agents are allocating resources, choosing tools, and addressing informants to detect non-compliance, which have eluded most scholars who have written on detection. Indeed, regulatory agencies may well use many different strategies to “close the information asymmetry gap” with regulatees (Macher et al. 2011), yet their choices to take or discount opportunities to gather more information would also be shaped to a large extent by bureaucratic reputation, as this article has shown. Indeed, the case study’s findings fit to a large extent with the assumption that the detection preferences of bureaucratic agencies are shaped by reputational concerns. Incidents that the general public was likely to become worried about were given attention because they could affect the public image of the agency or of more prominent and publicly exposed members of the public administration. Therefore detection practices in the regulatory agency were oriented towards collecting that kind of information principally or exclusively. Similarly, the use of unions / worker representatives as third-party informers could damage the reputation of the agency in the eyes of the regulated population of industrialists, therefore agents would rather avoid them or handle them in ways that would do the least harm to their relationship with the industry.

The case study has also shown that reputation is not able to account for everything that happens in detection practices, but it is determinant in framing how a number of other factors are shaping detection practices. It should therefore be considered as one thread of explanation – albeit an essential one – to be combined in empirical research with other dimensions, such as political control, resource constraints, information asymmetry, and the dynamics of cooperation in regulator-regulatee interactions. Further studies, and particularly comparisons (international and inter-agencies), would

contribute greatly to developing further our understanding of detection practices and to what extent they are shaped by bureaucratic reputation.

REFERENCES

- Ayres, Ian and Braithwaite, John. 1992. *Responsive Regulation* New York and Oxford: Oxford University Press.
- Bardach, Eugene and Kagan, Robert A. 1982. *Going by the Book. The Problem of Regulatory Unreasonableness*. Philadelphia: Temple University Press.
- Beamish, Thomas D. 2000. Accumulating Trouble: Complex Organization, a Culture of Silence, and a Secret Spill. *Social Problems* 47:473-498.
- Beaumont, P.B. 1979. The Limits of Inspection: A Study of the Workings of the Government Wages Inspectorate. *Public Administration* 57:203-217.
- Brehm, John and Hamilton, James T., 1996. Noncompliance in Environmental Reporting: Are Violators Ignorant, or Evasive, of the Law? *American Journal of Political Science* 40:444-477.
- Brunsson, Nils. 2002. *The Organization of Hypocrisy*. Copenhagen: Copenhagen Business School Press.
- Callahan, Elletta Sangrey, Dworkin, Terry Morehead and Lewis, David, 2004. Whistleblowing: Australian, U.K., and U.S. Approaches to Disclosure in the Public Interest. *Virginia Journal of International Law* 44:879-912.
- Carpenter, Daniel. 2010. *Reputation and Power: Organizational Image and Pharmaceutical Regulation at the FDA* Princeton: Princeton University Press.
- Carpenter, Daniel P. and Krause, George A., 2012. Reputation and Public Administration. *Public Administration Review* 72:26-32.
- Carson, W.G. 1982. *The Other Price of Britain's Oil. Safety and Control in the North Sea*. New

- Brunswick, New Jersey: Rutgers University Press.
- Chaskiel, Patrick, 2007. Syndicalisme et risques industriels. Avant et après la catastrophe de l'usine AZF de Toulouse (septembre 2001). *Sociologie du travail* 49:180-194.
- Chassine, Jean-Pierre, Jean Roigt, and Philippe Follenfant (2007) *Coopération entre l'inspection du travail et l'inspection des installations classées dans la prévention des risques industriels majeurs*. Inspection Générale des Affaires Sociales, Paris.
- Coglianese, Cary, and David Lazer. 2003. Management-Based Regulation: Prescribing Private Management to Achieve Public Goals. *Law & Society Review* 37:691-730.
- Dick, Alexander, Adair Morse, and Luigi Zingales. 2010. Who Blows the Whistle on Corporate Fraud? *The Journal of Finance* LXV:2213-2253.
- Dunsire, Andrew, 1993. Manipulating Social Tensions: Collibration as an Alternative Mode of Government Intervention. *MPFIG Discussion Paper* 93.
- Etienne, Julien, 2013. Ambiguity and relational signals in regulator-regulatee relationships. *Regulation & Governance* 7:30-47.
- Etienne, Julien, forthcoming, 2014. Les incidents industriels dans la société : un enjeu de réputation pour la chimie et l'administration publique françaises. In *Réactions à risques. Regards croisés sur la chimie*, eds. Michèle Dupré and Jean-Christophe Le Coze. Paris: Lavoisier.
- European Council. 1996. *Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances*. Published in *OJ L 10, 14.1.1997*: 13–33.
- Gilad, Sharon, and Tamar Yogev. 2012. How Reputation Regulates Regulators: Illustrations from the Regulation of Retail Finance. In *The Oxford Handbook of Corporate Reputation*, eds. Timothy G. Pollock and Michael L. Barnett, 320-340. Oxford: Oxford University Press.
- Gilboy, Janet A., 1997. Implications of "Third-Party" Involvement in Enforcement: The INS, Illegal Travelers, and International Airlines. *Law & Society Review* 31:505-529.
- Haines, Fiona. 1997. *Corporate Regulation. Beyond 'Punish or Persuade'* Oxford: Clarendon Press.

- Hawkins, Keith. 1984. *Environment and Enforcement: Regulation and the Social Definition of Pollution*. Clarendon Press, Oxford.
- Heimann, Larry. 1997. *Acceptable Risks. Politics, Policy, and Risky Technologies* Ann Arbor: The University of Michigan Press.
- Helland, Eric. 1998. The Enforcement of Pollution Control Laws: Inspections, Violations, and Self-Reporting. *The Review of Economics and Statistics* 80:141-153.
- Hood, Christopher, Henry Rothstein, and Robert Baldwin. 2001. *The Government of Risk. Understanding Risk Regulation Regimes*. Oxford: Oxford University Press.
- Hutter, Bridget. 1997. *Compliance: Regulation and Environment*. Oxford: Oxford University Press.
- Innes, Robert. 2001. Violator avoidance activities and self-reporting in optimal law enforcement. *Journal of Law, Economics, & Organization* 17:239-256.
- Jones, Simon, Christian Kirchsteiger, and Willy Bjerke. 1999. The importance of near miss reporting to further improve safety performance. *Journal of Loss Prevention in the Process Industries* 12:59-67.
- Kaplow, Louis, and Steven Shavell. 1994. Optimal law enforcement with self-reporting of behavior. *Journal of Political Economy* 102:583-606.
- La Porte, Todd and Thomas, Craig W., 1995. Regulatory Compliance and the Ethos of Quality Enhancement: Surprises in Nuclear Power Plant Operations. *Journal of Public Administration Research and Theory* 5:109-138.
- Landau, Martin and Stout Jr., R., 1979. To Manage Is Not To Control: Or the Folly of Type II Errors. *Public Administration Review*:148-156.
- Lee, Eungkyoon. 2010. Information disclosure and environmental regulation: Green lights and gray areas. *Regulation & Governance* 4:303-328.
- Lobel, Orly, 2005. Interlocking Regulatory and Industrial Relations: The Governance of Workplace Safety. *Administrative Law Review* 57:1070-1151.

- Macher, Jeffrey T., Mayo, John W., and Nickerson, Jack A. 2011. Regulator Heterogeneity and Endogenous Efforts to Close the Information Asymmetry Gap. *Journal of Law and Economics* 54:25-54.
- Magill, Elizabeth, 2009. Agency Self-Regulation. *The George Washington Law Review* 77:859-903.
- Maor, Moshe, 2011. Organizational Reputations and the Observability of Public Warnings in 10 Pharmaceutical Markets. *Governance* 24:557-582.
- Maor, Moshe, 2013. Theories of Bureaucratic Reputation. Working Paper, Department of Political Science, Hebrew University of Jerusalem.
- Maor, Moshe, Gilad, Sharon and Ben-Nun Bloom, Pazit, 2013. Organizational Reputation, Regulatory Talk, and Strategic Silence. *Journal of Public Administration Research and Theory* 23:581-608.
- Maor, Moshe and Sulitzeanu-Kenan, Raanan, 2013. The Effects of Salient Reputational Threats on the Pace of FDA Enforcement. *Governance* 26:31-61.
- McCaffrey, David P., Smith, Amy E. and Martinez-Moyano, Ignacio J., 2006. "Then Let's Have a Dialogue": Interdependence and Negotiation in a Cohesive Regulatory System. *Journal of Public Administration Research and Theory* 17:307-334.
- McGoey, Linsey, 2007. On the will to ignorance in bureaucracy. *Economy and Society* 36:212-235.
- McGoey, Linsey and Jackson, Emily, 2009. Seroxat and the suppression of clinical trial data: regulatory failure and the uses of legal ambiguity. *Journal of Medical Ethics* 35:107-112.
- Miethe, Terance D., and Joyce Rothschild. 1994. Whistleblowing and the Control of Organizational Misconduct. *Sociological Inquiry* 64:322-347.
- Parker, Christine. 2002. *The Open Corporation: Effective Self-regulation and Democracy* Cambridge: Cambridge University Press.
- Perrow, Charles. 1999. *Normal Accidents. Living with High-Risk Technologies*. 2nd ed. Princeton, NJ: Princeton University Press.

- Pfaff, Alexander S. P. and Sanchirico, Chris William, 2000. Environmental Self-Auditing: Setting the Proper Incentives for Discovery and Correction of Environmental Harm. *Journal of Law, Economics, & Organization* 16:189-208.
- Pfaff, Alexander S. P., and Chris William Sanchirico. 2004. Big Field, Small Potatoes: An Empirical Assessment of EPA's Self-Audit Policy. *Journal of Policy Analysis and Management* 23:415-432.
- Potoski, Matthew and Prakash, Aseem 2011. Voluntary Programs, Regulatory Compliance and the Regulation Dilemma. In *Explaining Compliance: Business Responses to Regulation*, eds. Christine Parker and Vibeke Lehmann Nielsen, 245-262. Cheltenham: Edward Elgar.
- Power, Michael. 2007. *Organized Uncertainty: Designing a World of Risk Management* Oxford: Oxford University Press.
- Rothstein, Henry, Borraz, Olivier and Huber, Michael, 2013. Risk and the limits of governance: exploring varied patterns of risk-based governance across Europe. *Regulation & Governance* 7:215-235.
- Scholz, John T., 1991. Cooperative Regulatory Enforcement and the Politics of Administrative Effectiveness. *American Political Science Review* 85:115-136.
- Scholz, John T., Twombly, Jim and Headrick, Barbara, 1991. Street-Level Political Controls over Federal Bureaucracy. *American Political Science Review* 85:829-850.
- Shah, Atul K., 1996. Creative compliance in financial reporting. *Accounting, Organizations and Society* 21:23-39.
- Short, Jodi L., and Michael W. Toffel. 2008. Coerced Confessions: Self-Policing in the Shadow of the Regulator. *The Journal of Law, Economics & Organization* 24:45-71.
- Short, Jodi L., and Michael W. Toffel. 2010. Making Self-Regulation More Than Merely Symbolic: The Critical Role of the Legal Environment. *Administrative Science Quarterly* 53:361-396.
- Stafford, Sarah L. 2007. Should You Turn Yourself In? The Consequences of Environmental Self-Policing. *Journal of Policy Analysis and Management* 26:305-326.

- Unger, B. and van Waarden, F., 2009. How to dodge drowning in data? Rule- and risk-based anti money laundering policies compared. *Review of Law and Economics* 5:953-85.
- Vaughan, Diane. 1990. Autonomy, Interdependence, and Social Control: Nasa and the Space Shuttle Challenger. *Administrative Science Quarterly* 35:225-257.
- Weil, David, and Amanda Pyles. 2005. Why Complain? Complaints, Compliance, and the Problem of Enforcement in the U.S. Workplace. *Comparative Labor Law and Policy Journal* 27:59-92.